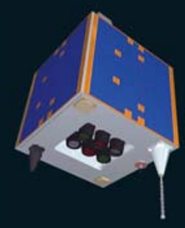
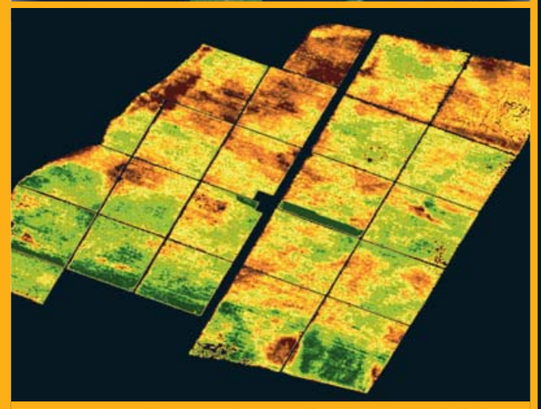
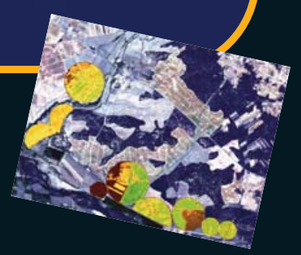
DEIMOS 1 AND DEIMOS IMAGING,
NEW SPACECRAFT, NEW COMPANY



WHOLE COUNTRIES, GREAT IMAGES, RIGHT NOW!





COMPANY, QUANTITATIVE REMOTE SENSING

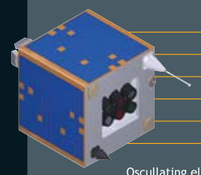
The entire Deimos Imaging, and Deimos 1 mission concept is geared towards obtaining time series data sets. With these large data sets, obtained at close intervals, accurate and representative analysis of phenomena is possible. It is thus possible to develop and refine mathematical models of natural and man made processes to accurately diagnose problems and propose solutions.

The approach is to rely less on interpretation and tend more towards conclusions, based on data and math models. The end outcome is that images are more of a tool and less of an end product. The end products are data sets, which can be visualized as images and map like objects, but are more oriented to be interpreted by different means.

Output is data, and associated attributes (mean, deviation, anomaly, etc.), that is ready for exploitation by the end user. These sets of data are produced ready to be interfaced and further processed by other software tools (GIS, expert systems, warning systems, etc.) and be used in the real world (agricultural machinery and agri-business ERP's, for example). All data and processes are amply referenced and based in well known sources and applications such as MODIS, Landsat TM or Spot Image products so the user can know from the start their worth and use.

MISSION DATA

Deimos 1 will be launched in Q4 this year from Yasni in Russia, aboard a Dnepr launcher. Its target orbit is:



Semi-major axis	7057.983 Km
Eccentricity	0.0013
Inclination	98.129 deg.
RA Asc. Node	196.89 deg.
Arg. of Pericenter	107.6 deg.
True Anomaly	65.2 deg.

Oscillating elements, at injection, UTC 20081030.182645, in Mean Earth Equator frame.

This gives a resulting cycle of 14 28/43 or 43 days main cycle, with a mean altitude of 670.957 Km. Coupled to the 660 Km swath this gives us a re-visit time of 3 days over the Iberian Peninsula.

The Deimos 1 spacecraft has the following characteristics:

- 1 DMC-SLIM 6 SSTL sensor, with 2 banks, 3 cameras per bank operating in 3 bands, red, green and near infra red, identical to current DMC bands.
- Image swath at current target orbit: 660 Km
- GSD at current target orbit: 20 m
- Overall sustainable capacity, 200,000 sq. km. per orbit, 3 million sq. km. per day, up to 500,000 sq.km. per orbit in specific occasions
- X band (40 Mbps) and S band (8 Mbps) downlink
- 2 x 2 GB solid state data recorder and 1 x 8 GB high speed data recorder on board storage

Deimos Imaging will have its own ground station at Boecillo, Spain (2-3 passes/day), and will count on KSat for GS support at Svalbard (10-11 passes/day), thus allowing the full potential of image acquisition to be easily downloaded.

This configuration gives Deimos Imaging the following imaging capabilities:

- Iberian Peninsula, 1 commercially available coverage per week, on a regular basis.
- EU area, 1 commercially available coverage per month, on a regular basis.
- USA or Canada, possible coverage within 3 to 8 days upon request (dependent on cloud cover conditions for integrity).

Image acquisition at 10.30 AM local time.

PRODUCTS & APPLICATIONS - www.deimos-imaging.com/products

The products and applications offered by Deimos Imaging are geared to inform the user about the environment and the natural medium to enable specific tasks or decisions. We cover, amongst others, the following areas:

PRECISION AGRICULTURE:

- Nutrient monitoring, status reports and recommended practices
- Crop yield estimates and monitoring, harvesting schedules and area specific action reports
- Watering monitoring, status reports and times and quantity recommendations
- Weed situation monitoring
- Crop damage reports (such as ice, hail, floods, blights, etc.) and monitoring
- Agricultural insurance claim and damages reports, both for crops and pasture

FOREST MANAGEMENT (AS A NATURAL RESOURCE):

- Vegetation state derived danger level, for forest fires
- Forest fire detection and monitoring (burnt area, fire temperature and power generated; at 15 min. intervals)
- Forest fire severity index report
- Forest regeneration and reforestation monitoring
- Forest and live fuel inventory and FCV
- Carbon fixation capacity estimate
- Forest and human activity interfaces (power lines, roads, recreation areas, etc.)

FORESTRY AND LOGGING (AS AN INDUSTRY), PRODUCTS SUCH AS:

- Tree state zoning reports
- Forest plot monitoring and control
- Regeneration success monitoring
- Reforestation success monitoring
- Forest activity monitoring (clearings, cuttings, selection, etc.)
- Forest inventory support (plots, updating, FCV estimates, etc.)

BIOFUEL AND BIOMASS CROPS:

- Crop Yield estimates and monitoring for biofuel and biomass producers or end users (generating plants or production facilities)
- Regional herbaceous production monitoring for biomass power plants
- Derived products estimates such as bark, shell, etc. for biomass generation
- Crop damage reports (such as ice, hail, floods, blights, etc.) and monitoring

HIGH VALUE CROPS (SUCH AS WINE, FRUITS AND OLIVE OIL):

- Optimum harvesting scheduling
- Nutrient monitoring, status reports and recommended practices
- Crop Yield estimates, forecast and monitoring,
- Watering monitoring, status reports and times and quantity recommendations
- Weed situation monitoring
- Crop damage reports (such as ice, hail, floods, blights, etc.) and monitoring
- Agricultural insurance claim and damages reports, both for crops and pasture
- Regional, country and worldwide production reports

ENVIRONMENTAL MANAGEMENT (PROTECTED AND SPECIAL AREAS, POLLUTION, HUMAN IMPACT):

- Land use and vegetation cover maps
- Spill detection and monitoring
- Flood (flash flood) monitoring and evaluation
- Basin snow content monitoring
- Basin water quality monitoring
- Flood prone area maps (insurance)
- Energy rich areas for solar and wind farms

WATER RESOURCES MANAGEMENT:

- Fresh water resources at origin (rain, cloud, temperatures, storm systems)
- Snow phenomena (snow cover, areas, snow storm systems)
- Torrential rain and effects (flash flooding forecast and warning and monitoring, flood monitoring, affected areas, damage assessment)
- Water uses (evapotranspiration model, solar radiation reports, watered plots report, rain use and efficiency, vegetation water stress reports).
- Water infrastructure (reservoir and canals, capacities, losses, aquifer and wells use, permits and violations)
- Sea water uses (desalination impact on crops and coastal environment)

IMPACT ON HUMAN ACTIVITIES:

- Construction, parameters that might influence tasks such as paving, concrete pouring, working hours, etc.
- Transport, parameters that might influence task such as oversized loads, ice on roads, working hours, physical environment effects on special cargoes, etc.
- Health, parameters affecting areas such as: allergies, UV radiation, heat and relative humidity, storm warning, etc.
- Tourism, parameters affecting areas such as: outdoor activities (trekking, rafting, recreation areas, flash flood forecast, etc.

Deimos Imaging invites all those interested to get in touch with us so pilot schemes can be set up now in preparation for operational arrangements from first day of operations. This will provide the potential customers and Deimos Imaging with powerful and low cost tools to refine and mitigate risks of the end products.

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deimos IMAGING